

IN THE CLAIMS:

Please find below a listing of all of the pending claims. The statuses of the claims are set forth in parentheses.

1. (Currently amended) A method for cooling a room configured to house a plurality of computer systems, said method comprising:

providing a heat exchanger unit configured to receive air from said room and to deliver air to said room;

supplying said heat exchanger unit with cooling fluid from an air conditioning unit;
~~wherein said cooling fluid is operable to cool said received air in said heat exchanger unit;~~
cooling said received air through heat exchange with the cooling fluid in the heat exchanger unit;

sensing temperatures at one or more locations in said room;

controlling at least one of the temperature of said cooling fluid and said air delivery by said heat exchanger unit to said room in response to said sensed temperatures at said one or more locations; and

wherein the step of controlling said air delivery by said heat exchanger unit comprises manipulating a mass flow rate of the cooling fluid supplied to the heat exchanger unit.

2. (Currently amended) The method according to claim 1, ~~further comprising:~~

~~providing a cooling device configured to manipulate the temperature of said cooling fluid;~~ wherein said step of controlling at least one of a temperature of said cooling fluid and said air delivery to said room comprises varying an output of said air conditioning unit ~~cooling device~~ to control the temperature of said cooling fluid.

3 and 4. (Canceled).

5. (Original) The method according to claim 1, further comprising:
determining whether the sensed temperatures at one or more locations in said room
are within a predetermined range.

6-8. (Canceled).

9. (Original) The method according to claim 5, further comprising:
varying the cooling fluid temperature in response to the sensed temperatures at one or
more locations in said room being outside of said predetermined range.

10. (Original) The method according to claim 9, further comprising:
increasing said cooling fluid temperature in response to a sum of the sensed
temperatures at one or more locations being below said predetermined range.

11. (Original) The method according to claim 9, further comprising:
decreasing said cooling fluid temperature in response to a sum of the sensed
temperatures at one or more locations being above said predetermined range.

12-18. (Canceled).

19. (Currently amended) The system according to claim ~~[[18]]~~22, further comprising
one or more temperature sensors, wherein said heat exchanger controller is configured to
receive environmental condition information from said one or more temperature sensors.

20 and 21. (Canceled).

22. (Currently amended) ~~The system according to claim 21, further comprising:~~ A system for cooling a room containing one or more computer systems, said one or more computer systems being housed in a plurality of racks, said system comprising:

a plurality of heat exchanger units configured to receive cooling fluid through a cooling fluid line from an air conditioning unit for cooling the cooling fluid, said plurality of heat exchanger units being further configured to receive air through openings in the plurality of heat exchanger units, wherein said air is cooled through heat transfer with said cooling fluid in the plurality of heat exchanger units;

said plurality of heat exchanger units having at least one fan configured to cause air to flow into and flow out of the heat exchanger unit;

a heat exchanger controller operable to control a supply of said cooling fluid to said plurality of heat exchanger units and operable to control the speed of the at least one fan;

one or more temperature sensors for sensing temperatures at one or more locations in the room;

an air conditioning unit controller configured to operate the air conditioning unit to vary the temperature of said cooling fluid delivered to the one or more locations in the room;

and.

one or more pumps configured to control cooling fluid delivery to one or more of said plurality of heat exchanger units, wherein said heat exchanger controller is operable to control said one or more pumps.

23. (Currently amended) ~~The system according to claim 18, further comprising:~~ A system for cooling a room containing one or more computer systems, said system comprising:

a heat exchanger unit configured to receive cooling fluid through a cooling fluid line from an air conditioning unit for cooling the cooling fluid, said heat exchanger unit being further configured to receive air through openings in the heat exchanger unit, wherein said air is cooled through heat transfer with said cooling fluid in the heat exchanger unit;

said heat exchanger unit having at least one fan configured to cause air to flow into and flow out of the heat exchanger unit;

a heat exchanger controller operable to control a supply of said cooling fluid to said heat exchanger unit and operable to control the speed of the at least one fan;

one or more temperature sensors for sensing temperatures at one or more locations in the room;

an air conditioning unit controller configured to operate the air conditioning unit to vary the temperature of said cooling fluid delivered to the one or more locations in the room;
and

a valve configured to meter the flow of cooling fluid through said heat exchanger positioned along said cooling fluid line generally upstream of said heat exchanger unit, wherein said heat exchanger controller is operable to control the mass flow rate of said cooling fluid through said valve.

24. (Currently amended) The system according to claim ~~[[18]]~~22, wherein said cooling device comprises at least one of a variable capacity compressor, a heat exchanger, a chiller, and a cooling device controller configured to control said at least one of said variable capacity compressor, said heat exchanger, and said chiller.

25-29. (Canceled).

30. (Currently amended) A system for cooling computer systems housed in one or more racks, said racks being maintained in a room, said system comprising:

means for receiving air from the room, said means for receiving air being located at various locations of the room;

means for cooling the received air in the plurality of means for receiving air, said plurality of means for cooling including means for receiving cooling fluid from an air conditioning unit;

means for delivering cooled air to said computer systems;

means for measuring temperatures at one or more locations in said room;

means for controlling delivery of said cooled air through said means for delivering cooled air in response to the temperature measurements; [[and]]

means for controlling the temperature of said cooling fluid; and

means for manipulating a mass flow rate of the cooling fluid supplied to the heat exchanger unit.

31. (Original) The system according to claim 30, further comprising:

means for controlling delivery of cooling fluid through said cooling means.

32. (New) The method according to claim 1, wherein the step of manipulating a mass flow rate of the cooling fluid supplied to the heat exchanger unit further comprises metering the flow of cooling fluid through said heat exchanger with a valve positioned along

a cooling fluid line configured to channel cooling fluid from the air conditioning unit to the heat exchanger unit.

33. (New) The method according to claim 1, wherein the step of manipulating a mass flow rate of the cooling fluid supplied to the heat exchanger unit further comprises metering the flow of cooling fluid through said heat exchanger with one or more pumps positioned along a cooling fluid line configured to channel cooling fluid from the air conditioning unit to the heat exchanger unit.

34. (New) The method according to claim 1, wherein the step of providing a heat exchanger unit further comprises providing a plurality of heat exchanger units positioned at various locations of the room, said method further comprising:

manipulating the mass flow rate of cooling fluid supplied to a plurality of heat exchanger units in a substantially independent manner with respect to each of the plurality of heat exchanger units.

35. (New) The system according to claim 22, wherein said heat exchanger controller is operable to control said one or more pumps to supply cooling fluid to a plurality of heat exchanger units in a substantially independent manner with respect to each of the plurality of heat exchanger units.

36. (New) The system according to claim 23, wherein said heat exchanger controller is operable to control the mass flow rate of said cooling fluid through a plurality of heat exchanger units in a substantially independent manner with respect to each of the plurality of heat exchanger units.

37. (New) The system according to claim 30, further comprising:

means for metering the flow of cooling fluid through said heat exchanger, said means for metering being positioned along a cooling fluid line configured to channel cooling fluid from the air conditioning unit to the means for receiving air.

38. (New) The system according to claim 30, further comprising:

means for manipulating the mass flow rate of cooling fluid supplied to a plurality of means for receiving air in a substantially independent manner with respect to each of the plurality of means for receiving air.

39. (New) A computer readable storage medium on which is embedded one or more computer programs, said one or more computer programs implementing a method for cooling a room configured to house a plurality of computer systems, said one or more computer programs comprising a set of instructions for:

supplying a heat exchanger unit configured to receive air from the room and to deliver air to the room with cooling fluid from an air conditioning unit;

cooling said received air through heat exchange with the cooling fluid in the heat exchanger unit;

sensing temperatures at one or more locations in said room;

controlling at least one of the temperature of said cooling fluid and said air delivery by said heat exchanger unit to said room in response to said sensed temperatures at said one or more locations; and

manipulating a mass flow rate of the cooling fluid supplied to the heat exchanger unit.

40. (New) The computer readable storage medium according to claim 39, said one or more computer programs further comprising a set of instructions for:

metering the flow of cooling fluid through said heat exchanger with a valve positioned along a cooling fluid line configured to channel cooling fluid from the air conditioning unit to the heat exchanger unit.

41. (New) The computer readable storage medium according to claim 39, said one or more computer programs further comprising a set of instructions for:

manipulating the mass flow rate of cooling fluid supplied to a plurality of heat exchanger units in a substantially independent manner with respect to each of the plurality of heat exchanger units.